

REMARKS

Claims 1-59 are pending in the application. Claims 1, 18, 25, 34, 39, 51, and 58 have been amended. Favorable reconsideration of the application, as amended, is respectfully requested.

I. ALLOWABLE SUBJECT MATTER

Applicants acknowledge with appreciation the allowance of claims 7, 8, 14, 24, 29, 32, 44, 46, and 54. Applicants believe that other pending claims are also in condition for allowance for at least the reasons set forth below.

II. REJECTIONS OF CLAIMS 1, 18, 25, 34, 39, 51, AND 58 UNDER 35 U.S.C. § 112

Claims 1, 18, 25, 34, 39, 51, and 58 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Claims 1, 18, 25, 34, 39, 51, and 58 have been amended to remove the language, "at least when ... , or" These amended claims now recite "in response to a change in configuration data ... , or discovery of a new protecting CMTS." It is respectfully submitted that this limitation is definite because either one (or both) of the claimed triggering events (i.e., the "change in configuration data ... ," and the "discovery of a new protecting CMTS") is required for the synchronization to take place. As such, withdrawal of the rejections is respectfully requested.

III. REJECTIONS OF CLAIMS 1-6, 9-13, 15-23, 25-28, 30-31, 33-43, 45, 47-53, AND 55-59 UNDER 35 U.S.C. §§ 102 AND 103

Claims 1-6, 9-13, 15-23, 25-28, 30-31, 33-43, 45, 47-53, and 55-59 stand rejected under 35 U.S.C. §§ 102(e) and 103 primarily based on U.S. Patent No. 6,449,250 ("Otani"). U.S. Patent No. 5,473,599 ("Li") was cited for remedying the deficiencies of Otani in rejecting claims 12, 22, and 37 under 35 U.S.C. § 103. U.S. Patent No. 6,236,678 ("Horton") was cited for remedying the deficiencies of Otani in rejecting claims 20 and 59 under 35 U.S.C. § 103. All pending claims are believed to be allowable for at least the following reasons. Withdrawal of the rejection is respectfully requested.

Independent claims 1, 18, 25, 34, 39, 51, and 58 have been amended to further clarify pertinent features of the invention. Specifically, the invention defined in independent claim 1 now requires that synchronization between a protecting CMTS and a working CMTS is performed in response to one of two triggering events. Specifically, claim 1 recites "receiving information about the status of the group of cable modems from the working CMTS to thereby synchronize the protecting CMTS to the working CMTS in response to a change in configuration data pertaining to the group of cable modems associated with the working headend device, or

discovery of a new protecting headend device." All other rejected independent claims, i.e., claims 18, 25, 34, 39, 51, and 58, contain recitations similar to that of claim 1 regarding the above-identified triggering events. Support for these amendments is found at, for example, page 17, lines 9-11 of the present specification. Thus, no new matter has been introduced by the amendments. It is believed that these amendments do not narrow the claim scope. The limitations were present in the previously submitted claims – albeit in different language.

As explained fully in the previous response, one goal of the present invention is in providing redundancy for headend components of digital cable networks. Specifically, when a working CMTS becomes unavailable to service its group of cable modems, a protecting CMTS takes over service to those cable modems. The switchover takes place preferably transparently to the cable modems by keeping the working and protecting CMTSs in synchronization regarding service parameters for the cable modems.

Independent claims 1, 18, 25, 34, 39, 51, and 58 require that this synchronization occur in response to the above-identified triggering events, i.e., "in response to a change in configuration data pertaining to the group of cable modems associated with the working CMTS, or discovery of a new protecting CMTS." According to the embodiments of the invention, synchronization may be triggered when (a) local configuration changes are detected or (b) a standby CMTS (in learn state) is just discovered. See, for example, page 17, lines 4-17 of the present specification.

By contrast, neither of Otani, Li, and Horton discloses the above-identified feature of the invention, i.e., synchronizing the protecting headend device to the working headend device "in response to a change in configuration data pertaining to the group of cable modems associated with the working CMTS, or discovery of a new protecting CMTS."

In the Otani system, when the failure of the device 10 is detected, the monitor device 7 transfers IP address, the sub net mask, and the control information of the failed device 10 to the protection device 12 (column 8, lines 35-60). According to Otani, transfer of the information is triggered by a failure of the device 10, rather than configuration data change pertaining to cable modems associated with a working CMTS or discovery of a new protecting CMTS as claimed. In fact, nothing in the Otani patent suggests monitoring a change in configuration data pertaining to cable modems associated with a working CMTS, or discovery of a new protecting CMTS.

It is respectfully submitted that a failure of the central device 10 does not cause "a change in configuration data pertaining to the group of cable modems associated with the working CMTS." Such a failure may, arguably, change a "status" of the central device 10 itself, but it should not be viewed as changing configuration data pertaining to cable modems associated with that central device.

In the Office Action, the Examiner asserts that Otani's regular updates of data would (coincidentally) include those times when the working CMTS has changed or when a new protecting device is discovered. In addition to the reasons set forth above, the Otani patent fails to teach the claimed invention because the regular updates of data described in Otani does not teach synchronization in response to the claimed triggering events. It is respectfully submitted that a mere possibility of such a coincidental match in timing based on regular updates does not reasonably teach synchronization in response to the triggering events as claimed. As such, Otani fails to teach or suggest one of the claimed features in this regard as well.

The Li patent is directed to a system having a router which determines when the active or standby router is no longer operating by listening for "hello" messages from these routers. The Li patent is not concerned with a change in configuration data pertaining to cable modems associated with a working CMTS, or discovery of a new protecting CMTS. Thus, Li does not cure the deficiencies of Otani with respect to the above-identified claimed feature.

The Horton patent was cited as describing a CMTS which is embodied as a line card. Horton describes in general a system in which requests to transmit data packets upstream from a cable modem to a cable headend are generated. However, Horton is silent on a triggering event of synchronization between a working CMTS and a protecting CMTS. Accordingly, Horton does not make up the deficiencies of Otani with respect to the above-identified claimed feature.

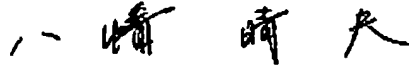
Regarding the newly cited Razzaghe patent (U.S. Patent No. 6,202,169), the Examiner possibly has equated "an indication of a change in status of a primary computer system" with the claimed triggering events, i.e., "a change in configuration data pertaining to the group of cable modems associated with the working CMTS," and "discovery of a new protecting CMTS." However, the primary computer system in Razzaghe is not a cable modem associated with a working CMTS. Nor is it a new protecting CMTS. Rather, the Razzaghe primary computer system corresponds to a computer connected to another computer by a network. The Razzaghe system has nothing to do with a CMTS-cable modem system which the present invention is directed to. Thus, the triggering event in the Razzaghe system pointed out by the Examiner does not corresponds to the claimed triggering events.

For at least the reasons set forth above, the invention defined in independent claims 1, 18, 25, 34, 39, 51, and 58 and their dependent claims is believed to be patentable over the cited art. Withdrawal of the rejections is respectfully requested.

IV. CONCLUSION

Applicants believe that all pending claims are in condition for allowance, and respectfully request a Notice of Allowance at an early date. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-843-6200.

Respectfully submitted,
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Limited Recognition under 37 CFR § 10.9(b)

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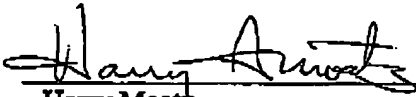
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Expires: November 6, 2003



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Director of Enrollment and Discipline